UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,857	12/30/2003	Tim Allen	ALTRP108	6310

51501	7590	11/21/2006

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EXAMINER
CAO, CHUN

ART UNIT	PAPER NUMBER
2115	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/749,857</td><td>Applicant(s)
ALLEN, TIM</td></tr>
<tr><td>Examiner
Chun Cao</td><td>Art Unit
2115</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *13 September 2006*.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-28* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-28 are presented for examination.

2.   The text of those applicable section of Title 35, U.S. Code not included in this action can be found in the prior Office Action.

Drawings

3.   Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4.   The rejections are respectfully maintained and reproduced infra for applicant's convenience.

5.   Claims 1-28 rejected under 35 U.S.C. 102(b) as being anticipated by Inaba et al. (Inaba), U.S. patent no. 4,396,987.

        As per claim 1, Inaba discloses a system on a programmable chip [fig. 3], the system comprising:

memory [col. 3, lines 13-16; col. 4, lines 17-22]; a processor [MPUN, fig. 3; col. 4,

lines 22-23] couple to memory on the programmable chip, the processor operable to

write streaming output information to memory [fig. 3; col. 4, lines 22-26];

a streaming output peripheral configured to generate clock cycle accurate output

signals [pulses Xp and Zp; col. 4, lines 27-35], wherein the clock cycle accurate output

signals are generated by reading streaming output information from memory and

outputting signals based on the streaming output information [col. 3, lines 42-47; col. 5,

lines 33-50].

As per claim 2, Inaba discloses the memory, processor, and streaming output

peripheral are connected to a simultaneous multiple primary component fabric [fig. 3;

col. 4, lines 17-30].

As per claim 3, Inaba discloses streaming output information includes amplitude

and timing information [col. 4, lines 27-37; col. 5, lines 33-50; col. 6, lines 29-35].

As per claim 4, Inaba discloses the streaming output information comprises a

sequence of values written to memory [col. 5, lines 33-50].

As per claim 5, Inaba inherently discloses the sequence of values is associated

with a periodic waveform [col. 5, lines 33-50].

As per claim 6, Inaba inherently discloses the sequence of values is associated

with an event driven waveform [col. 4, lines 27-37; col. 5, lines 33-50; col. 6, lines 29-

35].

As per claim 7, Inaba inherently discloses the sequence of values is associated

with a scripted waveform [col. 4, lines 27-37; col. 5, lines 33-50; col. 6, lines 29-35].

As per claim 8, Inaba discloses the streaming output peripheral operates as a streaming parallel output [fig. 3; col. 4, lines 27-46].

As per claim 9, Inaba inherently discloses the streaming output peripheral operates as a digital to analog converter (DAC) [col. 5, lines 33-50].

As per claim 10, Inaba discloses the streaming output peripheral operates as a pulse width modulator [col. 9, lines 21-40].

As per claim 11, Inaba inherently discloses the clock cycle accurate output values are generated during expected clock cycles [col. 4, lines 27-35].

As per claim 12, Inaba inherently discloses the clock cycle accurate output values form clock cycle accurate waveforms [col. 4, lines 27-35].

As per claim 13, Inaba discloses the clock cycle accurate waveform is generated without intervention from the processor [col. 6, lines 29-50].

As per claim 14, Inaba discloses the streaming output peripheral receives address information from the processor indicating where to read streaming output information [col. 5, lines 35-50].

As per claim 15, Inaba discloses the address information comprises one or more memory addresses [col. 5, lines 35-50; col. 6, lines 29-50].

As per claim 16, Inaba discloses the memory, processor, and streaming output peripheral are connected using simultaneous multiple primary component fabric [fig. 3; col. 4, lines 17-30].

As to claims 17-23, Claims 1-16 basically are the corresponding elements that are carried out the method of operating steps in claims 17-23. Accordingly, claims 17-23

are rejected for the same reason as set forth in claims 1-16.

As per claims 24-28 are written in mean plus function and contained the same

limitations as claims 1-16. Therefore, same rejection is applied.

6.   Applicant's arguments filed 9/13/2006 have been fully considered but are not

persuasive.

7.   In the remarks, applicants argued in substance that in **Inaba** system, 1) there is

not a programmable chip, such as a Field Programmable Gate Array (FPGA) or a

Complex Programmable Logic Device (CPLD). 2) Inaba does not describe a

simultaneous multiple primary component fabric that allows a primary component to

access a secondary component at the same time another primary component on the

fabric is accessing another secondary component.

8.   The examiner respectfully traverses. 1) Inaba discloses a system on a

programmable chip [fig. 3]; and there is no claim language to indicate a programmable

chip, which is a Field Programmable Gate Array (FPGA) or a Complex Programmable

Logic Device (CPLD). 2) Inaba discloses the memory, processor, and streaming output

peripheral are connected to a simultaneous multiple primary component fabric [fig. 3;

col. 4, lines 17-30]; and there is no claim language to indicate a simultaneous multiple

primary component fabric that allows a primary component to access a secondary

component at the same time an another primary component on the fabric is accessing

another secondary component.

9.   **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Nov. 16, 2006

CHUN CAO
PRIMARY EXAMINER